



# Record measured values on machine tools

ibaPDA-Interface-SINUMERIK-Xplorer



## ibaPDA

Xplorer interface for accessing SINUMERIK CNC control systems

### Areas of application

- › Online monitoring and visualization
- › Make the machine IoT-capable
- › Benchmarking
- › Commissioning support
- › Calculate characteristics

# SINUMERIK-Xplorer interface makes it possible to access machine tool data

Using the ibaPDA-Interface-SINUMERIK-Xplorer interface, data can be recorded directly from Siemens SINUMERIK CNC control systems. The connection and signal selection is as easy as it is with all Xplorer interfaces.



## At a glance:

- › Measured value acquisition directly from the NCK and Integrated Sinamics component of SINUMERIK CNC control systems
- › Connection via standard interfaces without additional hardware
- › No intervention in the control system necessary
- › Convenient selection of the signals with the symbol browser
- › Change or expansion of the signals to be measured without programming and without stopping the machine
- › Evaluation with ibaAnalyzer included

The interface of the Xplorer series makes it possible to access data from SINUMERIK CNC control systems. In this way, iba is expanding the connectivity of the Xplorer interfaces from the connection of pure PLC systems to the world of machine tools. SINUMERIK CNC control systems are making the start.

### Access without additional hardware and programming

As is standard with Xplorer interfaces, the SINUMERIK systems are accessed via standard network interfaces of the system - without additional hardware for measured

value acquisition. It is not necessary to change the configuration of the control system or to program it.

### Access to NCK component of a SINUMERIK control system

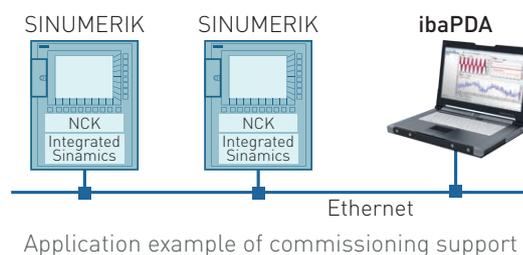
With the SINUMERIK-Xplorer, signals can be acquired from the NCK part of the SINUMERIK

control systems as well as parameters from the Integrated Sinamics part of the control systems. In this way, important data, such as axis, tool and drive data, is available for online monitoring and for further processing or analyses.

If symbols and operands from the PLC part of the SINUMERIK control system are required, these can be acquired with the S7-Xplorer.

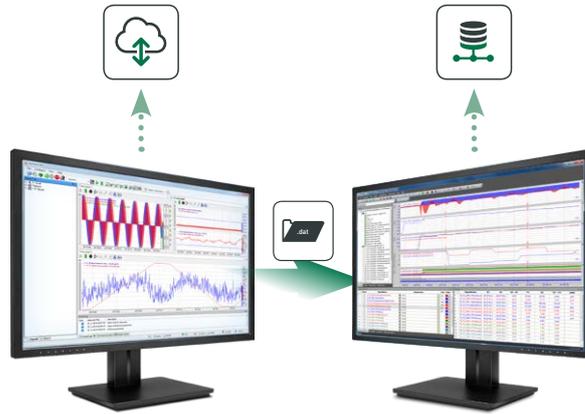
### Free selection of symbols

The signals can be easily and conveniently selected in the integrated symbol browser by clicking with the mouse. Depending on the requirement, the signal selection can be flexibly changed - without changing the CNC program.



## Online

- › Acquisition of SINUMERIK machine tool data
- › Online visualization
- › Status monitoring in real time
- › Saving data in cloud systems
- › Central time stamp



ibaPDA

ibaAnalyzer

## Offline/ interactive or automated

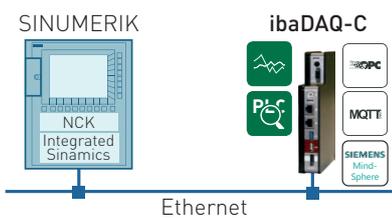
- › Individual offline analysis
- › Reusable analyses
- › Automated processing of data
- › Automatic generation of reports with ibaAnalyzer-Reportgenerator
- › Connection to databases with ibaAnalyzer-DB

### Monitoring machine parameters online

In ibaPDA clients, the signal trend is visualized online and displayed in real-time. The operating personnel is therefore always able to monitor the current status of the machine, axes, spindles and drives.

### IoT-capable with ibaDAQ-C

The measured values can also be acquired with the compact standalone device ibaDAQ-C. Characteristic values are calculated directly in the device and provided to superordinate systems. Machine tools can easily be connected to the IoT using the edge-device ibaDAQ-C.



Connection to the IoT with ibaDAQ-C

### Free analysis included

The free analysis tool ibaAnalyzer can be used to further process and analyze the acquired data subsequently. Since data acquisition and analysis are separated from each other, the analysis can take place already during the acquisition phase or at a later point in time, for example by experts away from the system.

ibaAnalyzer can run on several computers so that several users can analyze the data individually according to the viewpoints of interest to them. The data can be centrally stored on a server or sent by e-mail.

Once the requirements for the evaluation have been set, these can be saved as an analysis rule and reused at any time. An analysis can be started and executed automatically.

### Licensing

The prerequisite for using ibaPDA-Interface-SINUMERIK-Xplorer is an ibaPDA basic license.

The SINUMERIK-Xplorer license allows the measured value acquisition from up to 16 SINUMERIK control systems. If more connections are required, extension licenses are available for 16 additional connections.

Supported SINUMERIK control systems:

- › SINUMERIK 828D sI
- › SINUMERIK 840D sI
- › SINUMERIK 840D pI

### System prerequisites:

- › Windows 7 (32/64 Bit), 8 (32/64 Bit), 8.1 (32/64 Bit), 10 (32/64 Bit), Windows Server 2008 (32 Bit), 2008 R2 (64 Bit), 2012 (64 Bit), 2012 R2 (64 Bit), 2016 (64 Bit), 2019 (64 Bit)
- › PC, Multicore CPU 2 GHz, 4 GB RAM, 100 GB HDD

### ibaDAQ-C at a glance:

- › Standalone device for measured value acquisition via Ethernet, including:
  - › ibaPDA and ibaPLC-Xplorer interfaces
  - › OPC UA Server
  - › Connection to MindSphere and MQTT

Order No.	Name	Description
31.000033	ibaPDA-Interface-SINUMERIK-Xplorer	Extension license for an ibaPDA system adding the data interface SINUMERIK-Xplorer (interface to for up to 16 SINUMERIK NCUs)
31.100033	one-step-up-interface-SINUMERIK-Xplorer	Extension license for additional 16 SINUMERIK NCUs (max. 15)
30.770064	ibaPDA-V7-64	Base package server/client bundle for 64 signals
31.000001	ibaPDA-Interface-S7-Xplorer	Xplorer interface for Simatic S7-200/300/400/1200/1500/WinAC/Logo!
10.170002	ibaDAQ-C	Compact device for standalone data acquisition Installed as an ibaPDA server with PLC-Xplorer interfaces, OPC-UA server, Siemens MindSphere connection and MQTT



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